especially, if when shot the soldier was hungry, and tired by marching. The impact of the bullet against the body is very severe. One patient felt as if he "had been hit by a crow bar wielded by a giant," and had been thrown three or four yards out of the saddle. With an empty stomach, a wound of the stomach or intestines seems to close rapidly without any trouble, and so long as there has been no leakage of gastric or intestinal contents the patient will probably recover in a short time, but if leakage takes place symptoms of localized peritonitis may be expected which will require a laparotomy. Wounds of the bladder usually require a suprapubic cystotomy as they do not heal readily and generally leak into the surrounding tissues. A clean wound of the kidney seldom requires any interference, but a wound cutting the ureter across about two inches below the renal pelvis called for a nephrectomy. What may be called local shock is a condition sometimes encountered in wounds of the soft parts, probably, due to the shaking up of the tissues by the great velocity of the bullet. There is a feeling of considerable stiffness in the part for several days and the nerves in the immediate neighborhood although not touched by the bullet, may be more or less neuralgic. It is better, if possible, to wait a few days for this local shock to subside before proceeding to any operation.

A Common Mechanism for Most Injuries of the Shoulder Region.—THOMAS (*Jour. Amer. Med. Assoc.*, 1914, lxiii, 1018) believes that most fractures of the skeleton in the shoulder region, in which he includes dislocations and sprains, are due to hyperabduction. Dislocations and sprains tear the ligaments which are to the skeleton at the joints what the bones are between the joints, and sustain indirect violence as much as the bones. When the normal limit of abduction is passed the whole skeleton in the shoulder region, ligaments and bones, takes the strain, and any break will take place where for the moment the skeleton is weakest or the strain is greatest. It occurs most frequently in the shoulder joint, with or without a dislocation, a tearing of the ligaments without a dislocation constituting a sprain. The degree of force applied determines the extent of the lesion common to both, the tear of the axillary portion of the capsule, which includes all of the ligaments of the joint. With the arm in the sling position the result of healing is the same after a sprain as after the reduction of a dislocation, *i. e.*, a typical stiff and painful shoulder, the etiology of which has been so obscure and the subject of so much discussion. More or less palsy of the upper extremity follows in the great majority of cases, in some being very severe but in most only transitory. If instead of keeping the arm at the side during the healing process the patient, as an athlete, soon carries the arm vigorously into abduction the humeral head is easily pried out of the socket again by the leverage effect of hyperabduction in the absence of the resistance of the normal ligaments. Repetition of this accident occurs more easily, cicatricial contraction in the axilla is prevented, and the capsule heals across the gap between the torn margins necessary to permit the dislocation, and is, therefore, abnormally long. Exercise to stretch the contracted axillary portion of capsule is indicated in stiff and painful shoulders and contraction of the abnormally lengthened capsule, by operation, in recurrent dislocations. Any palsy in the former disappears with the return of normal motion.

It is due to inclusion of some or all the branches of the brachial plexus in the axillary inflammation consequent upon the joint lesion. Most obstetrical palsies of the upper extremity are, probably, due to the same cause, following an injury to the shoulder-joint of the child at birth from the pressure of its shoulder against the maternal pelvis. This resulted in a mild grade of posterior subluxation in nine cases and in an injury of the joint without dislocation in four cases. The latter recovered full motion and power later, and the former recovered power in proportion to the motion obtained at the shoulder. Künster, in 1889, maintained that these obstetrical palsies were due to injuries to the skeleton in the shoulder region and not to injuries of the brachial plexus. The resistance to reduction in old dislocations of the shoulder is due, chiefly, to the cicatricial changes in the torn and now abnormally arranged capsule. Traumatic brachial paralysis with flail-shoulder, in many cases, is due to a tearing of the ligamentous and muscle supports of the humerus at the shoulder-joint and a consequent slight falling of the humerus from the socket. This is, usually, not recognized until later and is then ascribed to paralytic relaxation from injury to the brachial plexus. In 6 cases in which the humerus was restored to its normal level by operation within eight weeks after the accident, the power of the paralyzed muscles returned. They are the first cases of the kind in which such recovery has been reported, because they are the first in which such treatment has been followed.

Typhoid Perforation.—ARMSTRONG (*Surg., Gynec., Obstet.*, 1914, 342) says that recent figures embracing 9713 cases of typhoid collected in England, Canada, and the United States, show that more than one-third of all deaths are due to perforation. In 15,224 collected cases there were 544 deaths, or about 1 in 31½. The size of the perforation varies from that of a small pin to that of a lead pencil. Only rarely is it larger. It is always situated almost directly opposite the mesenteric attachment. It is found somewhere in the terminal two feet of the ileum, in the overwhelming majority of cases. The first indication of perforation is pain. It is usually a sudden crampy pain or is sudden and persistent. The next important symptom, because of its constancy and significance, is change of expression, showing pain, pallor, distress, etc. Tenderness was present in 88 per cent. of the 83 cases and absent in 12 per cent., and is generalized or local. In 85 per cent. there was distinct rigidity and in 15 per cent. there was not. Little or no value can be attached to absence of liver dulness, especially, in a distended abdomen. The fall of temperature, so often spoken of, rarely occurred. In 95 per cent. of the cases the pulse quickened. Fitz's statement is emphasized that perforation may take place without suggestive symptoms and suggestive—so-called characteristic—symptoms may occur without any perforation having taken place. The symptoms calling for immediate incision are summarized as follows: pain, persistent; definite change for the worse in the expression of the patient; tenderness either abdominal or rectal; rounding up of the abdomen; and increased resistance to pressure. Local anesthesia is sufficient for the operation. One should always look for a second and a possible third perforation, though seldom found. The hospital house-staff should be made to feel that it is a reflection on their professional attainments to overlook a perforation. This will lead to early operation.